

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An optical-quality polarized part comprising:

an optical construct comprising a homogeneous first layer comprised of a high impact polyurethane-based optical material, wherein the first layer has a bonding surface and further has sufficient structural integrity to maintain optical power; and

a polarizer having a first side and an opposing second side, wherein the first side of the polarizer is integrally bonded to the first layer of the optical construct, across the entire bonding surface of such first layer, in a prescribed place thereon;

wherein the polarized part is free of any structural layer that is (1) bonded to a side of the first layer of the optical construct opposite the polarizer, and (2) solidified prior to such bonding.

Claim 2 (original): An optical-quality polarized part according to claim 1 wherein the polarizer comprises a polyethylene terephthalate film.

Claim 3 (original): An optical-quality polarized part according to claim 1 wherein the polarizer comprises a wafer.

Claim 4 (original): An optical-quality polarized part according to claim 1 wherein the polarizer comprises at least one layer supporting a polyvinyl alcohol film.

Claim 5 (original): An optical-quality polarized part according to claim 1 wherein the optical construct is a lens substrate.

Claim 6 (original): An optical-quality polarized part according to claim 1 wherein the high impact polyurethane-based optical material comprises a polyurethane prepolymer reacted with a diamine curing agent.

Claim 7 (previously presented): An optical-quality polarized part according to claim 1 wherein the optical construct further comprises a dye or colorant, a stabilizer, or a stiffener.

Claim 8 (original): An optical-quality polarized part according to claim 6 wherein the prepolymer comprises up to about 12 molar percent trimethylol propane.

Claim 9 (original): An optical-quality polarized part according to claim 6 wherein prepolymer is reacted with the diamine curing agent in an equivalent ratio of about 0.9 to 1.1 $\text{NH}_2/1.0 \text{ NCO}$.

Claim 10 (previously presented): An optical-quality polarized part according to claim 1 wherein the high impact polyurethane-based optical material comprises a reaction product of (a) a polyurethane prepolymer prepared by reaction of methylenebis(cyclohexyl isocyanate) with an OH-containing intermediate having a weight average molecular weight between about 500 and about 1,200 selected from the group consisting of polyester glycols, polyether glycols, and mixtures thereof in an equivalent ratio of 2.5 to 4.0 $\text{NCO}/1.0 \text{ OH}$ and (b) an aromatic diamine curing agent in an equivalent ratio of about 0.9 to 1.1 $\text{NH}_2/1.0 \text{ NCO}$.

Claim 11 (currently amended): An optical-quality polarized part according to claim 1, further comprising a hard coating, ~~wherein the hard coating is integrally bonded to a surface of the optical construct, wherein the coating is produced by liquid phase or vacuum deposition.~~

Claim 12 (currently amended): An optical-quality polarized part according to claim 1, further comprising a hard coating, ~~wherein the hard coating is integrally bonded to the second side of the polarizer, wherein the coating is produced by liquid phase or vacuum deposition.~~

Claims 13-31 (previously canceled)

Claim 32 (currently amended): An optical-quality polarized part according to claim 1 wherein:
the optical construct further comprises a homogeneous second layer having a bonding surface; and
the second side of the polarizer is integrally bonded to the second layer of the optical construct, across the entire bonding surface of such second layer, in a prescribed place thereon.

Claim 33 (original): An optical-quality polarized part according to claim 1 wherein the polarizer is bonded to the optical construct after the optical construct has been formed.

Claim 34 (previously presented): An optical-quality polarized part according to claim 32 wherein the optical construct has a front surface and an opposing rear surface, wherein the polarizer is bonded to the optical construct at or near the front surface.

Claim 35 (original): An optical-quality polarized part according to claim 1 wherein the polarizer is treated for bonding to the optical construct.

Claim 36 (previously presented): An optical-quality polarized part according to claim 1 wherein the polarizer has a thickness of less than 1 mm.

Claim 37 (previously presented): An optical-quality polarized part according to claim 1 wherein the polarizer has a thickness of less than 0.2 mm.

Claim 38 (previously presented): An optical-quality polarized part according to claim 1 wherein the polarizer is a wafer comprising a material selected from the group consisting of polycarbonate, poly(methyl methacrylate), polystyrene, cellulose acetate butyrate (CAB), cellulose acetate, and cellulose triacetate.

Claim 39 (currently amended): An optical-quality polarized part comprising:
an optical construct comprising a homogeneous first layer and a homogeneous second layer, each such layer comprising a high impact polyurethane-based optical material and each such layer having a bonding surface, wherein the first layer has sufficient structural integrity to maintain optical power; and
a polarizer having a first side and an opposing second side, wherein said first and second sides are integrally bonded to the bonding surfaces of the respective first and second layers of the optical construct, in prescribed places thereon;
wherein the polarized part is free of any structural layer that is (1) bonded to a side of the first layer of the optical construct opposite the polarizer, and (2) solidified prior to such bonding.

Claim 40 (previously presented): An optical-quality polarized part according to claim 39 wherein the polarizer comprises a polyethylene terephthalate film.

Claim 41 (previously presented): An optical-quality polarized part according to claim 39 wherein the polarizer comprises a wafer.

Claim 42 (currently amended): An optical-quality polarized part comprising:

an optical construct comprising a homogeneous first layer comprised of a high impact polyurethane-based optical material, wherein the first layer has a bonding surface and further has sufficient structural integrity to maintain optical power, and wherein the first layer is further comprised of a dye or colorant, a stabilizer, and/or a stiffener; and

a polarizer comprising a polyethylene terephthalate film and having a first side and an opposing second side, wherein the first side of the polarizer is integrally bonded to the first layer of the optical construct, across the entire bonding surface thereof, in a prescribed place thereon;

wherein the polarized part is free of any structural layer that is (1) bonded to a side of the first layer of the optical construct opposite the polarizer, and (2) solidified prior to such bonding.